

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A method for navigation, comprising:
providing a first ~~handheld navigation device, the first navigation device~~ including a triangulation positioning functionality ~~and an integral display;~~
providing a second ~~navigation device adapted to communicate with the first navigation device, the second navigation device including one or more a dead reckoning positioning components functionality; and~~
resolving a position of ~~one of~~ the first and the second ~~navigation devices, wherein resolving the position includes using the one or more dead reckoning positioning components functionality to determine the position when and the~~ triangulation positioning functionality ~~is interrupted.~~
2. (Currently Amended) The method of claim 1, wherein providing the first ~~handheld navigation device having a triangulation positioning functionality and an integral display includes providing a handheld multifunction device, and wherein providing the handheld multifunction device includes providing a handheld multifunction device selected from the a group of a Personal Digital Assistant (PDA) enabled device and a cell phone enabled device.~~
3. (Currently Amended) The method of claim 2, wherein ~~providing a handheld multifunction device selected from each of the group of a Personal Digital Assistant (PDA) enabled device and a cell phone enabled device includes providing a Personal Digital Assistant (PDA) enabled device and a cell phone enabled device having has an integrated compass.~~

4. (Currently Amended) The method of claim 1, wherein providing the first navigation device including a triangulation positioning functionality includes using a handheld GPS enabled device.
5. (Currently Amended) The method of claim 1, wherein providing the second navigation device adapted to communicate with the first navigation device and having one or more dead reckoning components includes providing a hand portable second navigation device which includes a rate gyro sensor.
6. (Currently Amended) The method of claim 5, wherein providing the second navigation device adapted to communicate with the first navigation device and having one or more dead reckoning components includes providing a hand portable second navigation device which includes an accelerometer sensor.
7. (Currently Amended) The method of claim 1, wherein providing a second navigation device adapted to communicate with the first navigation device includes providing a the first and a second navigation devices adapted to wirelessly communicate with one another, and wherein the first and the second navigation devices are adapted to includes providing first and second devices that communicate navigation related data wirelessly using a communication technology selected from the group of infra-red signaling, cellular technology, Bluetooth technology, and microwave technology.
8. (Currently Amended) The method of claim 7, wherein the providing a first navigation device includes providing a handheld first navigation device having an integral display, and wherein the method further includes using the first navigation device to display and to track a movement of one of the first and the second navigation devices.
9. (Currently Amended) The method of claim 1, wherein the method further includes performing a route calculation using the first navigation device.

10. (Currently Amended) A method for navigation, comprising:

providing a first mobile device ~~having an integral display, the first mobile device~~ including a GPS triangulation positioning functionality;

providing a second mobile device ~~adapted~~ to communicate with the first mobile device, the second mobile device including a dead reckoning functionality[,] ~~the dead reckoning functionality that includes~~ including an orientation component and a distance detection component;

resolving the position of one of the first and the second mobile devices using the GPS triangulation positioning functionality when the triangulation positioning functionality GPS service is available;

resolving the position of one of the first and the second mobile devices using the dead reckoning positioning functionality ~~in to~~ complement resolving the position with the triangulation positioning functionality when to the GPS triangulation positioning functionality ~~when GPS service is degraded interrupted~~; and

resolving the position of one of the first and the second mobile devices using the dead reckoning positioning functionality when the triangulation positioning functionality is unavailable.

11. (Currently Amended) The method of claim 10, wherein the method further includes using one of the GPS triangulation positioning functionality and ~~the~~ dead reckoning positioning functionalities to calibrate the other functionalities ~~when a high level of confidence in accuracy is determined with the one.~~

12. (Currently Amended) The method of claim 10, wherein the method further includes retrieving navigation related data from a memory of the second mobile device and displaying the navigation related data on an integral display of the first mobile device, ~~wherein the navigation related data includes navigation data selected from the group of marine craft data and automobile navigation data.~~

13. (Currently Amended) The method of claim 12, wherein the method further includes retrieving navigation related data from a memory of the first mobile device, wherein retrieving navigation related data further includes retrieving navigation related data selected from the group of a number of waypoints, a planned route, and points of interest.

14. (Original) The method of claim 13, wherein retrieving navigation related data for points of interest includes retrieving points of interest selected from the group of geographical points of interest, entertainment venues, dining venues, and lodging venues.

15. (Currently Amended) A method for navigation in a vehicle, comprising:
~~performing a route calculation using software operable on a first navigation device, the first navigation device including a processor and a memory in communication with the processor, wherein the memory is adapted to store navigation related data, the navigation related data including cartographic data including a number of locations and data indicative of thoroughfares of a plurality of types connecting certain ones of the locations, and wherein the first navigation device includes a triangulation positioning functionality;~~
~~tracking a location of a the first navigation device using the a triangulation positioning functionality; and the dead reckoning positioning functionality; and when tracking the location of the first navigation device is degraded, using a second navigation device that including includes a distance determination component and an orientation component, to continue tracking the location one of the first and second devices.~~

16. (Currently Amended) The method of claim 15, wherein the method further includes operably coupling the first and the second navigation devices to communicate with one another in a single vehicle.

17. (Currently Amended) The method of claim 15, wherein using a second navigation device to continue tracking the location includes using a handheld, portable second ~~navigation~~ device, wherein the handheld, portable second ~~navigation~~ device includes a cradle for the first ~~navigation~~ device, wherein the distance determination component includes an accelerometer sensor, and wherein the orientation component includes a rate gyro.

18. (Currently Amended) The method of claim 15, wherein using a second ~~navigation~~ device to continue tracking the location includes communicatively coupling the first ~~navigation~~ device to a dead reckoning positioning functionality in the vehicle, wherein the distance determination component includes at least one component selected from the group of an odometer and a speedometer, and wherein the orientation component includes at least one component selected from a differential wheel sensor, a rate gyro, and a compass.

19. (Currently Amended) The method of claim 15, wherein the method further includes software operable on the first and the second ~~navigation~~ devices for selecting between using the first and the second ~~navigation~~ devices.

20. (Currently Amended) The method of claim 19, wherein selecting between using the first and the second ~~navigation~~ devices includes resolving which of the first and the second ~~navigation~~ devices is providing a better set of position data.

21. (Currently Amended) The method of claim 20, wherein resolving which of the first and the second ~~navigation~~ devices is providing a better set of position data includes:

resolving whether the first ~~navigation~~ device is receiving triangulation positioning signals;

resolving whether the second ~~navigation~~ device is receiving triangulation positioning data; and

resolving whether either of the first and the second ~~navigation~~ devices are producing dead reckoning position data.

22. (Currently Amended) The method of claim ~~1221~~, wherein tracking the location includes tracking a location of the first and the second ~~navigation~~ device along a planned route and providing visual and audio route guidance.

23. (Currently Amended) A navigation system, comprising:

a first mobile ~~navigation~~ device including ~~one or more~~ a dead reckoning positioning component[s];

a second mobile ~~navigation~~ device, ~~which can be~~ removably situated in the first mobile device, ~~which includes~~ including a triangulation positioning functionality, ~~and which is adapted to communicate~~ in communication with the first mobile device, ~~wherein the second mobile navigation device includes a processor and a memory in communication with one another, the memory adapted to store navigation related data, the navigation related data including cartographic data including a number of locations and data indicative of thoroughfares of a plurality of types connecting certain ones of the locations, and wherein the memory is adapted to store software including software operable to perform routing algorithms;~~ and

wherein the first and the second mobile ~~navigation~~ devices ~~are adapted to~~ resolve a position of one of the first and the second ~~navigation~~ devices using the ~~one or more~~ dead reckoning component[s] of the first mobile ~~navigation~~ device to supplement resolving the position with ~~in complement to~~ the triangulation positioning functionality in the second mobile ~~navigation~~ device ~~when the triangulation positioning functionality of the second mobile navigation device is degraded.~~

24. (Currently Amended) The navigation system of claim 23, wherein ~~one or more~~ the dead reckoning component[s] includes at least one component selected

from a rate gyro and an accelerometer, and wherein the triangulation positioning functionality includes a GPS receiver.

25. (Currently Amended) The navigation system of claim 23, wherein the ~~one or more~~ dead reckoning component[s] includes at least one component selected from the group of an odometer, a speedometer, a differential wheel sensor communicatively coupled to ~~at least one~~ ~~two~~ wheel[s] of a vehicle, and a compass.

26. (Currently Amended) The navigation system of claim 23, wherein the first mobile ~~navigation~~ device further includes a triangulation positioning functionality, and the second ~~navigation~~ device further includes a dead reckoning positioning component.

27. (Currently Amended) The navigation system of claim 23, wherein the first mobile ~~navigation~~ device includes a processor, a memory, and a set of computer executable instructions operable thereon to perform a route calculation.

28. (Currently Amended) The navigation system of claim 23, wherein the second mobile ~~navigation~~ device is selected from the group of a multifunction PDA-enabled device and a multifunction cell phone-enabled device.

29. (Currently Amended) The navigation system of claim 23, wherein the second mobile ~~navigation~~ device, ~~which can be removably situated in the first mobile device, and which is adapted to communicate with the first mobile device,~~ includes a second mobile ~~navigation~~ device which can be ~~is~~ removably, physically interfaced to the first mobile device.

30. (Currently Amended) The navigation system of claim 23, wherein the ~~first and second mobile navigation devices, adapted to communicate with the first mobile device, includes a first and a second mobile navigation device adapted to wirelessly communicate with one another, and wherein the first and the second navigation~~

~~devices are adapted to communicate navigation related data are wirelessly interfaced with one another using a communication technology selected from the group of infra red signaling, cellular technology, Bluetooth technology, and microwave technology.~~

31. (Currently Amended) A vehicle navigation system, comprising:

~~a first navigation device having a processor, a memory, and a transceiver adapted to communicate with one another, the first navigation device including at least one a positioning functionality; the memory adapted to store navigation related data, the navigation related data including cartographic data including a number of locations and data indicative of thoroughfares of a plurality of types connecting certain ones of the locations, and wherein the memory is adapted to store software including software operable to perform routing algorithms;~~

~~a second navigation device having a processor, a memory, and a transceiver adapted to communicate with one another, the second navigation device including at least one a positioning functionality, the memory adapted to store navigation related data, the navigation related data including cartographic data including a number of locations and data indicative of thoroughfares of a plurality of types connecting certain ones of the locations, and wherein the memory is adapted to store software including software operable to perform routing algorithms;~~

~~wherein the transceivers in the first and the second navigation devices are adapted to transmit the navigation related data wirelessly between the first and the second navigation devices; and~~

~~wherein the first and the second navigation devices cooperate to resolve a position of the first and the second navigation devices.~~

32. (Currently Amended) The system of claim 31, wherein the ~~at least one~~ positioning functionality in the first navigation device includes a GPS functionality and the ~~at least one~~ positioning functionality in the second navigation device includes dead reckoning positioning functionality, including a distance determination sensor and an orientation sensor.

33. (Currently Amended) The system of claim 32, wherein the first and the second devices ~~are adapted to~~ resolve the position using the GPS functionality while a strong GPS signal service is available being received by to the first navigation device, and wherein one of the first and the second devices ~~are adapted to~~ resolve the position using the dead reckoning positioning functionality ~~in complement to supplement~~ the GPS functionality when one of an interrupted, and unavailable a GPS signal service is indicated by the first device degraded.

34. (Currently Amended) The system of claim 31, wherein the first ~~navigation~~ device includes a display operable to display the position and a route to a desired destination, and wherein the first ~~navigation~~ device is ~~adapted to navigate~~s the route to the desired destination using audio and visual guidance.

35. (Currently Amended) The system of claim 31, wherein the system further includes:

a remote server having a processor, a memory, and a transceiver ~~adapted to communicate with one another, the memory adapted to store~~ navigation related data; ~~the navigation related data including cartographic data including a number of locations and data indicative of thoroughfares of a plurality of types connecting certain ones of the locations, and wherein the memory is adapted to store software including software operable to perform routing algorithms; and~~

~~wherein the remote server is adapted to communicate with at least one of the first and the second navigation devices.~~

36. (Currently Amended) The system of claim 35, wherein the remote server processor ~~is adapted to respond~~s to a request from at least one of the first and the second ~~navigation~~ devices by performing calculations on the navigation related data ~~cartographic data~~ and transmitting results to ~~the~~ at least one of the first and the second ~~navigation~~ devices.